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FOOD FAT CONSUMPTION TRENDS

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Major shifts in the use of food fats and oils have occurred over the past 40 years, even though consumption has been relatively stable at around 45 pounds (fat content) per person. Total consumption, however, increased from about 5 billion pounds in the 1920's to about 8 billion pounds in 1959, reflecting the growth in population.

Substitution has been continually taking place, both among the three major food fat product groups—table spreads (butter and margarine), cooking fats (lard and shortening) and cooking and salad oils—as well as among products within each group. Important shifts also have taken place in the fats and oils used in the end product. There are indications that the use of invisible fats (such as non-separated fats consumed as part of prepared food) has increased while the consumption of separated fats has declined slightly.

Reduced consumption of table spreads has been about offset by an increase in "other" edible oils (mainly cooking and salad oils). Total consumption of the cooking fats has shown no consistent upward or downward trend.

Consumption Of Table Spreads Remains Below Prewar Level

During the 20 years before World War II, the annual per capita consumption of the two major table spreads averaged about 20 pounds (actual weight) (table 10). Wartime shortages contributed to reduce combined consumption of butter and margarine to a record low of 14.4 pounds per person in 1946. Recovery thereafter was slow. In the immediate postwar years 1947-49 consumption of the two spreads was only 16.2 pounds per person, almost 20 percent below 1935-59. Since 1947-49, consumption has increased about 1 pound, but in 1959 was still 15 percent below 1935-39.

Several factors help to account for this reduction from prewar. Other spreads, such as mayonnaise and cheese spreads, have increased in popularity, and per capita use of bread and potatoes has declined. Moreover, many consumers are intentionally limiting their use of all "visible fats."

A substantial shift in the consumption rates for butter and margarine has occurred. During the 20 years before World War II the per capita consumption of butter and margarine was comparatively stable, averaging about 17.7 pounds and 2.3 pounds.

During the war, butter use dropped from 17.0 pounds per person in 1940 to 10.5 pounds in 1946, while use of margarine increased from 2.4 pounds to 3.9 pounds. Butter use increased to a postwar peak of 11.2 pounds in 1947, but has trended downward since, dropping to a record low of 8.0 pounds in 1959. Margarine consumption has been on the uptrend since the war ended, reaching a record 9.2 pounds in 1959.

Reprinted from The Fats and Oils Situation, FOS-201, March 1960, by the Agricultural Economics Division, Agricultural Marketing Service, December 1960.

Table 10.—Food fats: Civilian use per person, by type of product, 1921-59

Year	Table spreads (actual weight)			Cooking fats			Edible oils (mainly cooking and salad oils)						Total all food products	
	Total	Butter	Margarine	Total	Lard	Shortening	Total	Cooking	Mayonnaise	Potato chips	Frozen french fries	Melamine	Actual weight	Fat content
	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	as	and salad	and salad	and salad	Lb.	Lb.	Lb.
1921	18.3	16.3	2.0 ¹	17.8	10.8	7.0	3.5	—	—	—	—	—	39.5	36.0
1922	18.8	17.1	1.7	20.0	13.3	6.7	4.4	—	—	—	—	—	43.1	39.5
1923	19.8	17.8	2.0	20.9	14.3	6.6	3.9	—	—	—	—	—	44.7	40.9
1924	19.8	17.8	2.0	21.2	14.2	7.0	4.3	—	—	—	—	—	45.5	41.6
1925	20.1	18.1	2.0	22.0	12.3	9.7	4.8	—	—	—	—	—	46.8	43.0
1926	20.3	18.3	2.0	21.7	12.2	9.5	5.6	—	—	—	—	—	47.7	43.8
1927	20.6	18.3	2.3	22.4	12.7	9.7	4.9	—	—	—	—	—	47.9	44.0
1928	20.2	17.6	2.6	22.5	13.2	9.3	5.0	—	—	—	—	—	47.7	44.0
1929	20.5	17.6	2.9	22.6	12.7	9.9	5.6	—	—	—	—	—	48.7	44.9
1930	20.2	17.6	2.6	22.5	12.7	9.8	6.2	—	—	—	—	—	48.8	45.0
1931	20.2	18.3	1.9	23.0	13.6	9.4	5.1	—	—	—	—	—	48.3	44.4
1932	20.1	18.5	1.6	21.9	14.4	7.5	4.8	—	—	—	—	—	46.8	42.9
1933	20.1	18.2	1.9	21.5	14.0	7.5	5.3	—	—	—	—	—	46.9	43.0
1934	20.7	18.6	2.1	22.5	13.0	9.5	5.4	—	—	—	—	—	48.5	44.5
1935	20.6	17.6	3.0	21.7	9.6	12.1	5.9	—	—	—	—	—	48.1	44.1
1936	19.9	16.8	3.1	23.6	11.3	12.3	6.0	—	—	—	—	—	49.5	45.7
1937	19.9	16.8	3.1	22.8	10.5	12.3	6.6	—	—	—	—	—	49.3	45.5
1938	19.6	16.6	3.0	22.6	11.1	11.5	6.9	—	—	—	—	—	49.1	45.3
1939	19.7	17.4	2.3	23.4	12.7	10.7	7.2	5.8	1.4	5/	5/	5/	50.3	46.4
1940	19.4	17.0	2.4	23.4	14.4	9.0	7.4	5.9	1.5	5/	5/	5/	50.2	46.4
1941	18.9	16.1	2.8	24.2	13.8	10.4	8.2	6.5	1.7	5/	5/	5/	51.2	47.6
1942	18.7	15.9	2.8	22.2	12.8	9.4	7.6	5.8	1.8	5/	5/	5/	48.5	44.9
1943	15.7	11.8	3.9	22.6	13.0	9.6	6.7	4.9	1.8	5/	5/	5/	45.0	42.0
1944	15.8	11.9	3.9	21.2	12.3	8.9	6.9	4.8	2.1	5/	5/	5/	43.9	40.9
1945	15.0	10.9	4.1	20.8	11.7	9.1	6.2	4.4	1.8	5/	5/	5/	42.0	39.1
1946	14.4	10.5	3.9	22.0	11.8	10.2	6.4	4.5	1.9	5/	5/	5/	42.8	40.0
1947	16.2	11.2	5.0	22.0	12.6	9.4	6.9	4.5	2.4	5/	5/	5/	45.1	42.0
1948	16.1	10.0	6.1	22.4	12.7	9.7	7.1	4.5	2.6	5/	5/	5/	45.7	42.6
1949	16.3	10.5	5.8	21.5	11.8	9.7	7.9	4.4	2.6	.9	.01	5/	45.7	42.6
1950	16.8	10.7	6.1	23.6	12.6	11.0	8.6	5.0	2.6	1.0	.02	5/	49.1	45.9
1951	16.2	9.6	6.6	21.3	12.3	9.0	7.7	4.1	2.6	1.0	.03	5/	45.2	42.1
1952	16.5	8.6	7.9	22.0	11.8	10.2	8.7	4.8	2.7	1.1	.04	.03	47.3	44.1
1953	16.6	8.5	8.1	21.6	11.4	10.2	9.1	5.0	2.7	1.3	.04	.06	47.2	44.1
1954	17.4	8.9	8.5	22.0	10.2	11.8	9.5	5.4	2.6	1.4	.05	.07	48.8	45.5
1955	17.2	9.0	8.2	21.6	10.1	11.5	10.5	5.8	2.9	1.6	.11	.07	49.2	45.9
1956	17.0	8.8	8.2	20.7	9.8	10.9	10.9	5.9	3.0	1.8	.13	.07	48.6	45.3
1957	17.0	8.4	8.6	19.9	9.5	10.4	10.7	5.5	3.2	1.8	.09	.07	47.7	44.4
1958	17.4	8.4	9.0	21.0	9.7	11.3	10.9	5.6	3.3	1.8	.13	.08	49.3	45.9
1959	17.2	8.0	9.2	21.6	9.0	12.6	10.8	5.5	3/3.3	1.8	.16	.09	49.5	46.1

^{1/} Excluding use in margarine, shortening, and nonfood products.^{2/} During 1939-1948 represents estimate of oil usage other than oil in mayonnaise and salad dressings. Beginning 1949 includes small quantities used for miscellaneous commercial purposes.^{3/} Estimated.^{4/} Includes only the fat content of butter and margarine.^{5/} Not available.

Favorable Price Ratio And Removal Of Restrictive Legislation
Boost Demand For Margarine In Past Decade

Butter prices to consumers have been at least double those for margarine in most years since the mid-1930's. In 1959 the price ratio was 2.7, and margarine prices were at the lowest level in the postwar era. Wholesale prices of butter have been close to Government purchase prices a large part of the time since the postwar dairy price support program was begun in 1949.

World War II, which brought about much of the reduction in combined use of butter and margarine, also gave impetus to much of the later growth in margarine consumption--and to removal of legal restriction that previously limited its use.

Certain restrictive Federal measures on the sale and price of margarine were lifted in 1950. Federal excise taxes of 10 cents per pound on colored margarine and 1/4 cent per pound on the uncolored product were repealed, effective July 1, 1950. The Act removing the excise tax also repealed the annual retailer's, wholesaler's, and manufacturer's tax imposed on the margarine industry.

Acceptance of margarine has increased during the last several years because of its standardization and general quality improvement. Margarine manufacturers have conducted a vigorous merchandising and promotional campaign since the war.

Margarine Industry Growth Associated With Sharp Expansion
In Output Of Edible Vegetable Oils

Increased production and consumption of margarine were made possible by the sharp growth in domestic output of edible vegetable oils during the last 20 years. Margarine's fat content averages about 81 percent. Expanding supply has meant lower prices in recent years for the fats and oils ingredients used in the manufacture of margarine. Margarine prices have declined while butter prices have been at support levels or above. The butter-margarine price ratio has widened.

Margarine output in 1959 set a new record of 1,611 million pounds, 773 million above the 1947-49 average and far above the 1935-39 average of 372 million pounds (table 11). A record 1,293 million pounds of fats and oils were used in margarine in 1959 compared with the 1947-49 average of 681 million pounds and only 303 million pounds in 1935-39 (table 12).

By far the largest source of fats and oils for expanded margarine output has been soybeans. Soybean oil used in the manufacture of margarine reached a new peak of 1,094 million pounds in 1959, and constituted 85 percent of all fats and oils used in making the product. Only small quantities of soybean oil were used in margarine before the war.

Cotton oil was the major constituent in margarine just after the end of the war, but its consumption decreased in the years following. The

Table 11.—Margarine (actual weight): Supply and disposition, 1921-59

Year	Supply						Disposition			
	Production			Stocks,			Exports and shipments	Domestic disappearance		1/ Per capita
	Colored	Uncolored	Total	Jan. 1	Total	Military		Total	Civilian	
	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Lb.
1921	8	207	215	—	215	1	—	215	215	2.0
1922	6	178	185	—	185	1	—	184	184	1.7
1923	10	217	228	—	228	2	—	226	226	2.0
1924	12	220	232	—	232	2	—	230	230	2.0
1925	12	222	234	—	234	2	—	232	232	2.0
1926	14	229	243	—	243	2	—	240	240	2.0
1927	15	262	277	—	277	2	—	276	276	2.3
1928	16	301	317	—	317	2	—	314	314	2.8
1929	18	338	356	—	356	2	—	353	353	2.9
1930	13	312	326	—	326	2	—	323	323	2.6
1931	6	224	230	—	230	2	—	230	230	1.9
1932	3	200	203	—	203	1	—	202	202	1.6
1933	3	243	245	—	245	1	—	243	243	1.9
1934	3	262	264	—	264	1	—	263	263	2.1
1935	3	379	382	—	382	1	—	380	380	3.0
1936	3	391	393	—	393	1	—	391	391	3.1
1937	2	396	397	—	397	2/	—	397	397	3.1
1938	2	384	385	—	385	2/	—	385	385	3.0
1939	1	299	301	—	301	2/	—	301	301	2.3
1940	2	318	320	—	320	1	—	318	318	2.4
1941	5	363	368	—	368	5	—	364	364	2.8
1942	65	361	426	—	426	32	—	364	364	2.8
1943	116	498	614	—	614	2/109	2	501	501	3.9
1944	108	481	588	—	588	93	1	497	497	3.9
1945	99	515	614	—	614	2/83	14	525	525	4.1
1946	58	514	573	—	573	52	5	533	533	3.9
1947	59	687	746	—	746	3/31	6	713	713	5.0
1948	96	812	908	—	908	3/16	5	887	887	6.1
1949	177	685	862	—	862	3/7	4	851	851	5.8
1950	500	437	937	13	950	3/7	11	918	918	6.1
1951	829	212	1,041	14	1,055	3/6	34	996	996	6.6
1952	1,156	130	1,286	19	1,305	3/7	54	1,219	1,219	7.9
1953	1,228	64	1,292	25	1,317	3/9	30	1,256	1,256	8.1
1954	4/	4/	1,364	22	1,386	8	5	1,346	1,346	8.5
1955	—	—	1,334	27	1,361	8	6	1,323	1,323	8.2
1956	—	—	1,370	24	1,394	9	4	1,354	1,354	8.2
1957	—	—	1,463	28	1,490	10	8	1,446	1,446	8.6
1958	—	—	1,573	26	1,599	9	3	1,549	1,549	9.0
1959 5/	—	—	1,611	38	1,649	10	2	1,605	1,605	9.2
1960	—	—	34	—	—	—	—	—	—	—

1/ Prior to 1950 based upon data from Bureau of Internal Revenue. 2/ Includes American Red Cross procurement for prisoner-of-war packages. 3/ Includes estimated quantities exported in food packages through CARE and other nongovernmental relief agencies; does not include quantities mailed abroad by individuals. 4/ Breakdown between colored and uncolored not available beginning with 1954. 5/ Preliminary.

Totals and per capita computed from unrounded numbers.

Table 12.--Margarine: Fats and oils used in manufacture, 1921-59

Year	Animal fats and oils										Vegetable oils										Primary fats and oils		Vegetable oils		Total primary and secondary stearine oils		Total primary fats and oils		Secondary fats and oils					
	Butter, fat		Lard fats		Beef fats		Total fats		Cotton- seed		Soybean		Corn		Peanut		Coconut		Palm		Palm kernel		Babassu		Other oils		Total oils		Primary fats and oils		Vegetable oils		Total primary and secondary stearine fats and oils	
	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.				
1921 3/	(1)	(32)	(33)	66	(35)	(1)	—	(12)	8	(68)	54	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
1922 3/	1	27	48	76	15	0	—	—	—	—	76	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	183					
1923	1	31	58	91	20	0	4/	—	6	83	4/	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	154					
1924	1	30	58	89	24	—	—	—	5	91	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	193					
1925	1	25	54	80	24	—	—	—	5	98	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	199					
1926	2	24	55	81	23	—	—	—	5	123	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	202					
1927	2	25	57	84	25	—	—	—	6	160	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	209					
1928	2	26	52	80	27	—	—	—	6	186	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	237					
1929	2	23	56	81	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	274					
1930	15	46	63	27	2	—	—	—	6	178	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	304						
1931	10	34	47	16	1	—	—	—	5	133	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—						
1932	9	17	26	15	4/	—	—	—	3	123	4/	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—						
1933	9	19	28	18	—	—	—	—	3	150	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	167						
1934	7	27	34	55	—	—	—	—	3	124	4/	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	200						
1935	3	23	26	100	2	—	—	—	4	174	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	216						
1936	2	24	26	108	14	—	—	—	4	150	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	309						
1937	0	2	17	17	19	174	32	2	1	74	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	326						
1938	0	1	18	19	143	40	—	—	4	90	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	312						
1939	0	1	16	17	99	71	—	—	4	39	4/	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	243						
1940	0	5	19	24	116	87	—	—	4/	0	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	257						
1941	0	8	29	38	167	133	2	1	3	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	297						
1942	0	11	24	35	252	198	6	5	0	0	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	346						
1943	0	10	17	27	215	211	11	12	0	0	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	500						
1944	0	6	13	18	254	207	9	10	0	0	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	478						
1945	0	0	2	5	7	223	201	7	14	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	465							
1946	0	0	3	6	11	323	228	7	17	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	607							
1947	0	0	4	7	11	453	255	1	11	4/	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	736							
1948	0	0	3	6	11	431	257	1	4/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	701							
1949	0	4	7	11	7	418	312	1	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	701							
1950	0	4	8	12	418	473	4/	16	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	764							
1951	0	4	8	13	354	652	4/	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	851							
1952	0	5	8	13	21	275	726	1	2	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51,046							
1953	0	8	7	10	17	397	665	2	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51,049							
1954	0	0	7	13	9	22	278	746	2	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51,106							
1955	0	0	25	37	6	283	752	1	3	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51,107							
1956	0	0	25	37	9	34	237	874	4/	3	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51,111							
1957	0	0	16	8	24	145	1,070	1,070	4/	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51,118							
1958	0	0	36	8	44	124	1,094	1,094	4/	1	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51,269							
1959	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51,293						
1960	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						

1/ Includes some linseed oil in 1942 and 1943. 2/ Use of deodorized and hydrogenated oils is included with the primary oil. Most of the vegetable stearine prior to 1950 was included with the primary oil. 3/ Includes 2 million pounds. 4/ Partly estimated. 5/ Includes 2 million pounds of secondary oils other than vegetable stearine in 1953-58. 6/ Preliminary. 7/ Not reported separately beginning 1959. Included with the primary oil.

Table 13.--Butter (actual weight): Supply and disposition, 1921-59

Year	Supply						Disposition					
	Production			Imports			Exports			Domestic disappearance		
	Cream-	Farm	Total	Imports:	stocks:	Total:	Cold storage:	ship-	ments:	in U.S.:	Mili-	Direct use as butter
	cry						Jan. 1	Terri-	arine	marg-	Total	
							1/	tories		2/	pro-	Civilian
											cure-	per
											ment	capita
	Mil.	Mil.	Mil.	Mil.	Mil.	Mil.	Mil.	Mil.	Mil.	Mil.	Mil.	Mil.
	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
1921	1,138	610	1,748	18	59	1,825	12	1	1,764	—	1,764	16.3
1922	1,226	644	1,870	7	48	1,925	15	1	1,882	—	1,882	17.1
1923	1,327	666	1,993	21	27	2,041	10	2	1,999	—	1,999	17.8
1924	1,423	643	2,066	19	30	2,115	12	2	2,035	—	2,035	17.8
1925	1,463	619	2,082	7	66	2,155	8	2	2,092	—	2,092	18.1
1926	1,512	620	2,132	7	53	2,192	8	2	2,148	—	2,148	18.3
1927	1,581	607	2,188	8	34	2,230	7	2	2,175	—	2,175	18.3
1928	1,543	577	2,120	4	46	2,170	8	3	2,115	—	2,115	17.6
1929	1,642	542	2,184	3	44	2,231	8	3	2,138	—	2,138	17.6
1930	1,626	523	2,149	3	82	2,234	7	2	2,162	—	2,162	17.6
1931	1,694	544	2,239	2	63	2,304	7	3/	2,270	—	2,270	18.3
1932	1,725	581	2,307	1	27	2,335	7	3/	2,306	—	2,306	18.5
1933	1,795	580	2,375	1	22	2,398	6	3/	2,281	—	2,281	18.2
1934	1,728	559	2,286	1	111	2,398	6	3/	2,345	—	2,345	18.6
1935	1,672	539	2,211	23	47	2,281	7	3/	2,234	—	2,234	17.6
1936	1,666	502	2,168	10	40	2,218	6	—	2,151	—	2,151	16.8
1937	1,662	472	2,135	11	61	2,207	6	—	2,158	—	2,158	16.8
1938	1,798	454	2,252	2	43	2,297	8	—	2,160	—	2,160	16.6
1939	1,782	429	2,210	1	129	2,340	9	—	2,276	—	2,276	17.4
1940	1,837	403	2,240	1	55	2,296	11	—	2,244	—	2,244	17.0
1941	1,872	395	2,268	4	41	2,313	13	—	2,185	70	2,116	16.1
1942	1,764	366	2,130	20	114	2,264	24	—	2,217	124	2,092	15.9
1943	1,674	342	2,015	3	25	2,043	94	—	1,791	266	1,525	11.8
1944	1,489	330	1,818	2	158	1,978	97	—	1,853	321	1,532	11.9
1945	1,364	336	1,699	4	28	1,731	55	—	1,635	222	1,413	10.9
1946	1,171	331	1,502	7	41	1,550	16	—	1,510	54	1,456	10.5
1947	1,329	311	1,640	4	23	1,667	17	—	1,628	28	1,600	11.2
1948	1,210	293	1,504	3/	22	1,526	8	—	1,486	36	1,450	10.0
1949	1,412	276	1,688	3/	32	1,720	6	—	1,581	32	1,549	10.5
1950	1,386	262	1,648	3/	133	1,781	28	—	1,648	34	1,614	10.7
1951	1,203	240	1,443	3/	105	1,548	24	—	1,497	52	1,445	9.6
1952	1,188	214	1,402	3/	27	1,429	2	—	1,354	38	1,316	8.6
1953	1,412	195	1,607	3/	73	1,680	26	—	1,372	43	1,329	8.5
1954	1,449	179	1,628	1	282	1,911	57	—	1,475	65	1,410	8.9
1955	1,383	166	1,549	1	379	1,929	229	—	1,536	77	1,459	9.0
1956	1,413	149	1,562	1	163	1,726	182	—	1,519	70	1,449	8.8
1957	1,414	137	1,551	1	25	1,577	13	—	1,477	55	1,422	8.4
1958	1,389	121	1,510	1	87	1,598	38	—	1,490	50	1,440	8.4
1959 4/	1,329	110	1,439	1	69	1,509	28	—	1,450	52	1,398	8.0
1960	—	—	—	—	31	—	—	—	—	—	—	—

1/ Includes stocks held by U. S. Department of Agriculture. 2/ Excludes shipments to Alaska and Hawaii beginning with April 1948; includes butter equivalent of butter spread and butter oil, and exports and shipments by U. S. Department of Agriculture and nongovernmental relief agencies not reported by the Bureau of the Census. 3/ Less than 500,000 pounds. 4/ Preliminary.

Totals and per capita computed from unrounded numbers.

124 million pounds of cottonseed oil used in margarine during 1959 was the least since 1940, and was less than 10 percent of total fats and oils consumed. Small quantities of lard, vegetable stearine, beef fats, coconut oil, peanut oil, corn oil, and other vegetable oils also are used in margarine. They have increased little as margarine output has grown.

Annual production of butter declined only slightly during 1955-58 averaging approximately 1.5 billion pounds. This was 30 percent below the 1935-39 average. Butter output in 1959, however, dropped to 1,439 million pounds, the lowest since 1952. Both creamery and farm butter continued their long run downtrend. Farm butter production has declined each year since World War II, dropping from 336 million pounds in 1945 to a mere 110 million pounds in 1959. No evidence of an uptrend in total production of butter has appeared since 1953. However, the downtrend may be arrested in 1960 as output is expected to be slightly above 1959.

Butter production has averaged somewhat larger than distribution through commercial channels in recent years, mainly because it is one of the products purchased under the dairy support program. Retail prices accordingly were determined primarily by support prices. An increasing proportion of the milk produced on U. S. farms has gone into fluid-use and the percentage used for butter has decreased.

(For a more comprehensive review of trends and their meaning for the future, see article entitled "Butter and Margarine Consumption Trends" which appeared in the May 1959 issue of the Fats and Oils Situation, FOS-196.)

Cooking Fat Consumption Fairly Stable

During the past 4 decades, the total consumption of cooking fats, consisting of the direct use of lard plus the consumption of shortening, has been fairly stable, averaging about 22 pounds per person (table 10).

Increasing amounts of lard have gone into the manufacture of shortening in recent years. Consequently comparison of direct use of lard with use of shortening is somewhat misleading. For example, in 1959 lard represented 22 percent of all fats and oils consumed in shortening compared with about 8 percent in 1947-49. If indirect use of lard is added to the direct use in the home, bakeries and commercial and other institutions, it is evident that lard is still the major cooking fat in the U. S. Nevertheless, there has been a significant substitution of shortening for lard as such.

Direct use of lard generally trended downward from about 14.0 pounds per person in the early 1920's to about 12.7 pounds in 1930 while shortening consumption rose from about 7.0 pounds to 9.8 pounds. During the depression years, direct use of lard bounced back to a peak of 14.4 in 1932 as shortening dropped to 7.5 pounds. Lard use again generally declined in the years following the depression until 1940 when it rebounded to 14.4 pounds per person. Shortening consumption showed opposite changes during these years. Direct use of lard reached the postwar peak of 12.7 pounds in 1948, then fell to a record low of 9.0 pounds in 1959. Shortening consumption per person once again showed the opposite trend, rising from 9.7 pounds in 1948 to a record high of 12.6 pounds in 1959.

Table 14.- Lard, including rendered pork fat: Supply, disposition, and utilization, 1921-59

Year	Supply		Production		Disposition		Utilization	
	Federally inspected	Other commercial	Farm	Total	Stocks	Total	Exports	Total
	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.
1921	1,379	729	2,106	893	10	15	32	10.8
1922	1,515	727	2,302	787	10	11	27	10.7
1923	1,971	747	2,718*	1,660	14	7	31	1.3
1924	1,923	737	2,660	2,079	14	662	0	1,464
1925	1,452	701	2,153	2,214	11	7	30	1.3
1926	1,513	693	2,206	42	2,248	16	25	1.625
1927	1,557	706	2,263	50	2,13	16	1,465	1.421
1928	1,750	708	2,458	55	2,513	16	1,541	1.434
1929	1,763	698	2,461	85	2,546	18	1,627	1.509
1930	1,551	706	2,227	82	2,309	18	1,564	1.465
1931	1,554	753	2,307	51	2,358	23	1,706	1.465
1932	1,573	806	2,380	51	2,431	24	1,814	1.465
1933	1,679	795	2,475	41	2,516	28	1,771	1.465
1934	1,341	750	2,092	33	2,224	435	23	1,647
1935	662	614	2,276	118	1,394	18	1,227	1.465
1936	992	687	1,679	53	1,732	112	1,449	1.465
1937	1,931	672	1,431	146	1,577	137	1,361	1.358
1938	1,034	694	1,728	54	1,782	205	1,440	1.436
1939	1,272	765	2,037	107	2,144	277	1,671	1.436
1940	1,527	761	2,288	162	2,450	201	1,924	1.436
1941	1,526	702	2,228	294	2,522	393	1,900	1.436
1942	1,724	675	2,401	199	2,600	652	1,805	1.436
1943	2,080	785	2,865	110	2,976	757	1,884	1.436
1944	2,367	785	3,054	297	3,351	902	1,957	1.436
1945	1,311	420	2,066	456	2,522	651	1,722	1.436
1946	1,342	353	2,288	129	2,265	451	1,664	1.436
1947	1,722	277	439	2,402	2,512	383	1,929	1.436
1948	1,680	252	403	2,355	2,488	277	1,987	1.436
1949	1,923	270	389	2,321	1,667	50	1,910	1.436
1950	2,009	309	341	2,534	173	2,707	617	1,118
1951	2,225	342	313	2,631	131	2,62	2,112	1.118
1952	2,234	378	2,863	127	2,900	689	1,467	1.118
1953	1,812	310	439	2,881	104	2,992	2,087	1.118
1954	1,831	290	403	2,355	211	2,566	2,016	1.118
1955	2,140	312	389	2,330	74	2,404	465	1.118
1956	2,255	304	309	2,660	104	2,764	57	1.118
1957	2,255	342	296	2,761	147	2,908	611	1.118
1958	2,080	378	2,863	127	2,900	689	2,143	1.118
1959	2,309	61	439	2,134	129	2,265	39	1.118

1950-1951 cold storage holdings as reported by U.S. Department of Agriculture to date, factory and warehouse stocks as reported by Bureau of the Census.

In 1947, imports of live hogs from Canada were \$1,270,000,000, and exports were \$1,043,000,000. The U.S. Department of Agriculture estimated that in 1948 imports would be \$1,300,000,000 and exports \$1,060,000,000.

Includes imports, which were less than 300,000 pounds in all years except 1943 and 1952, when 1 and 7 million pounds, respectively, were imported.

² Includes Lard in tusnokka as follows: 20 million pounds in 1943 and 1944, 17 million pounds in 1945, and 7 million

shipments by CARE.

4 Less than 500,000 pounds.

Difference between military shipments for civilian relief and military takings for both military use and civilian use.

Preliminary.

Table 15.--Shortening: Supply and disposition, 1921-59 1/

Year	Supply				Disposition			
	Production	Imports	Stocks, Jan. 1	Total supply	Exports and shipments	Military excluding relief	Domestic disappearance	Civilian
			Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Per capita
1921		811	2/	—	811	55	—	756 7.0
1922		784	2/	—	784	49	—	735 6.7
1923		751	2/	16	766	22	—	734 6.6
1924		830	2/	11	841	26	—	801 7.0
1925		1,153	2/	20	1,172	29	—	1,120 9.7
1926		1,141	2/	23	1,164	24	—	1,117 9.5
1927		1,179	2/	23	1,202	19	—	1,156 9.7
1928		1,143	2/	27	1,170	15	—	1,125 9.3
1929		1,220	2/	30	1,250	14	—	1,204 9.9
1930		1,211	2/	32	1,243	14	—	1,202 9.8
1931		1,172	2/	27	1,198	11	—	1,163 9.4
1932		945	2/	25	970	8	—	936 7.5
1933		953	2/	26	979	8	—	944 7.5
1934		1,204	2/	27	1,232	7	—	1,197 9.5
1935		1,547	8	28	1,582	9	—	1,533 12.1
1936		1,587	6	40	1,633	8	—	1,580 12.3
1937		1,595	2	45	1,642	7	—	1,589 12.3
1938		1,514	2	46	1,562	7	—	1,499 11.5
1939		1,404	1	56	1,460	8	—	1,396 10.7
1940		1,190	1	57	1,247	9	—	1,185 9.0
1941		1,409	1	54	1,465	12	32	1,367 10.4
1942		1,300	2/	53	1,354	15	57	1,237 9.4
1943		1,438	2/	46	1,483	81	102	1,234 9.6
1944		1,363	2/	67	1,431	19	212	1,147 8.9
1945		1,441	2/	53	1,494	52	223	1,175 9.1
1946		1,450	2/	44	1,494	26	18	1,409 10.2
1947		1,374	2/	41	1,416	29	-5	1,338 9.4
1948		1,441	2/	53	1,494	8	8	1,410 9.7
1949		1,487	2/	67	1,554	26	12	1,435 9.7
1950		1,710	2/	82	1,792	13	20	1,656 11.0
1951		1,403	2/	104	1,507	13	28	1,365 9.0
1952		1,611	2/	101	1,713	10	47	1,562 10.2
1953		1,675	—	94	1,768	16	62	1,597 10.2
1954		1,961	—	94	2,055	17	45	1,870 11.8
1955		1,975	—	120	2,095	42	47	1,863 11.5
1956		1,842	—	143	1,985	12	54	1,797 10.9
1957		1,808	—	122	1,930	17	37	1,756 10.4
1958		2,006	—	120	2,126	33	30	1,935 11.3
1959 3/	4/2,250	—	4/132	2,382	36	32	2,197	12.6
1960			111					

1/ Totals and per capita computed from unrounded numbers. Various adjustments have been made in exports, military and civilian use in 1941-49 primarily because of government programs.

2/ Less than 500,000 pounds. 3/Preliminary. 4/Beginning with 1959 production and stocks not directly comparable with earlier years because of a broader Census definition for baking and frying fats (shortening).

Table 16.—Shortening: Fats and oils used in manufacture, 1921-59

¹/ Includes miscellaneous vegetable oils, such as sesames, sunflower, palm kernel, and others. ²/ Includes palm oil, lard, and suet. ³/ Includes花生油. ⁴/ Includes unnamed vegetable oils reported by Bureau of the Census as "other." ⁵/ Peanut oil shown as "pork fat and lard." ⁶/ Less than 500,000 pounds. ⁷/ Obtained by subtracting from the shortening production in 1929 the estimated consumption of other oils used in manufacture. ⁸/ Peanut oil shown by Bureau of the Census in 1929 as used by Bureau of the Census in 1929 as used solely in making salad and table oils. ⁹/ Palm oil shown by Bureau of the Census in 1929 as used in food products other than margarine was taken as used entirely in shortening. ¹⁰/ Includes a small quantity of palm kernel oil. Sales of coconut and palm kernel oils to the confectionery and bakery trades by six leading refiners were deducted from the quantities of these oils shown by the Bureau of the Census as consumed in 1929 in food products other than margarine. The remainder, which is the figure given in the table, is probably slightly overestimated. ¹¹/ Preliminary. ¹²/ Not reported separately beginning 1929. ¹³/ 7 million pounds of linseed oil.

Totals computed from unrounded numbers.

Factors Affecting Consumption of Cooking Fats

Consumption of lard as lard is generally highest among low income groups. Shortening tends to be substituted for lard as the income level rises. Consumption data indicate that there has been a sharp drop in the percentage of urban families using lard and a sharp rise in families using shortening. Use of lard in rural areas continues to be substantially heavier than in urban sectors.

The population shift from agricultural to urban areas has been a major factor in the declining consumption of lard as such. The farm-bred homemaker who moves to the city no longer renders lard for her own use. Eventually she becomes accustomed to using other cooking fats such as shortening or cooking oils.

Other important factors affecting the competitive nature of the cooking fats industry include shifts in price relationships between lard and other fats and oils, changes in manufacturing techniques and consumer tastes and preferences, improvement in product quality and cooking recipes. Most of the past growth in shortening consumption can be traced to its substitution for lard in cooking uses. However, in the past decade there apparently has been some slight replacement of "solid" shortenings by "liquid" oils, whether used as a cooking and salad oil, or used in the manufacture of mayonnaise, salad dressings, and related products. This development probably is partly associated with the trend to lighter diets.

Increased production and consumption of shortening were made possible by the sharp growth in domestic output of edible vegetable oils during the past 20 years as was the case of margarine.

Shortening production in 1959 set a new record of 2,250 million pounds. This was 250 million pounds above 1958 and compared with the 1947-49 average of 1,434 million pounds and 1935-39 average of 1,529 million pounds (table 15).

Of the total fats and oils used in the manufacture of shortening in 1959, soybean oil comprised 51 percent, lard 22 percent, cottonseed oil 14 percent and edible beef fats 11 percent. While use of all the major fats and oils increased, the biggest gain in 1959 was registered by lard. Before World War II, cottonseed oil ranked first as a shortening ingredient, with about two-thirds of total use (table 16).

Cooking And Salad Oil Consumption Data Now Available

The "other edible" category, the major component of which is cooking and salad oils, has shown a fairly steady growth in the past 4 decades, rising from 3.5 pounds per person in 1921 to about 11 pounds in 1959 (table 18). The only interruption to the persistent increase in the consumption rate was during World War II when the use of all food fats declined.

Available data prior to 1959 did not give a breakdown on the end uses of fats and oils consumed in the "other edible" category. Cooking and salad oils undoubtedly accounted for the major share of this group over the years. Beginning in 1959, Census data provided more detail on the "other edible" category by showing fats and oils consumed in salad and cooking oils separately. The "other edible" category now mainly represents small quantities used for miscellaneous commercial purposes. In 1959, the consumption of salad and cooking oils per person was 9.7 pounds while that for the "other edible" was 1.1 pounds per person.

Although data for the "other edible oils" group prior to 1959 do not permit detailed analysis, annual statistics covering the salad dressing, mayonnaise and related products industry date back to 1939. As shown in table 10, the per capita consumption of edible oils used in mayonnaise and salad dressings has increased from 1.4 pounds per person in 1939 to 3.3 in 1959. Oils used in mayonnaise and salad dressing during 1939-59 averaged 30 percent of the total edible oils. While oil usage per capita in mayonnaise and salad dressings continues to edge up, its proportion relative to the total consumption of other edible oils has declined slightly in the past decade. This reflects the substantial increase in total edible oil consumption during the 1950's due mainly to increased use of salad and cooking oils as such and also to growing commercial use of oils in the production of potato chips, frozen french fries, mello-rine, and other prepared foods and food mixes.

Table 17.--Cooking and salad oils: Supply, disposition, and oils used, 1959

Year	Supply			Disposition			
				Domestic disappearance			
				Civilian			
	Pro- duction	Stocks Jan. 1	Total supply	Exports	Military	Total	Per capita
	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Lb.
1959	1,751	56	1,807	42	26	1,685	9.7
1960		54					
Cooking and salad oils: Oils used, by type, 1959							
	Soybean oil	Cotton- seed oil	Corn oil	Peanut oil	Coconut oil	Palm kernel	Total
1959	817	628	270	40	3	1	Mil. lb. 1,759

Table 18.—Fats and oils other than butter and lard: Estimated direct use for food, 1921-59 1/ 2/

Year	Supply of food fats and oils			Total supply			Disposition					
	Produc-	Imports	Begin-	used in	Food	Food oils	Used in	Exports	Direct domestic food use			
	tion	stocks	ning	prod-	oils	including	short-	and	Military	Civilian		
	3/	4/	4/	ucts	food	used in	foots,	ening	ship-	6/	Total	Per capita
				products	nonfood	marga-	used in	and	marg-	6/		
	Mil.	Mil.	Mil.	Mil.	Mil.	Mil.	Mil.	Mil.	Mil.	Mil.	Mil.	Ib.
	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.	lb.
1921	1,668	74	549	105	2,396	202	944	421	—	382	3.5	
1922	1,377	78	447	141	2,043	127	898	223	—	482	4.4	
1923	1,395	124	313	156	1,988	125	904	175	—	442	3.9	
1924	1,588	102	343	135	2,168	128	983	171	—	495	4.3	
1925	1,914	111	391	122	2,538	146	1,319	179	—	559	4.8	
1926	2,213	131	337	170	2,851	164	1,316	161	—	658	5.6	
1927	2,197	91	552	182	3,022	168	1,382	171	—	581	4.9	
1928	1,839	107	719	247	2,912	160	1,380	133	—	605	5.0	
1929	1,986	133	634	309	3,062	173	1,476	116	—	686	5.6	
1930	2,024	117	611	365	3,117	162	1,462	104	—	760	6.2	
1931	1,869	110	628	325	2,932	161	1,344	93	—	637	5.1	
1932	1,908	88	697	242	2,935	177	1,098	122	—	596	4.8	
1933	1,780	108	944	282	3,114	182	1,140	97	—	663	5.3	
1934	1,629	114	1,032	255	3,030	170	1,410	58	—	685	5.4	
1935	1,695	471	706	597	3,469	182	1,850	26	—	754	5.9	
1936	1,978	331	657	614	3,580	177	1,905	24	—	774	6.0	
1937	2,242	432	699	424	3,797	202	1,918	37	—	852	6.6	
1938	2,477	209	788	424	3,898	231	1,822	47	—	893	6.9	
1939	2,390	123	904	377	3,794	179	1,638	135	—	947	7.2	
1940	2,265	75	895	267	3,502	198	1,426	63	—	983	7.4	
1941	2,580	50	831	320	3,781	259	1,647	53	10	1,087	8.2	
1942	2,760	89	7/728	84	3,661	257	1,577	78	45	996	7.6	
1943	3,219	81	707	32	4,039	305	1,890	219	42	861	6.7	
1944	2,913	117	8/782	9	3,821	284	1,794	113	37	886	6.9	
1945	3,260	124	707	4	4,095	327	1,911	167	51	801	6.2	
1946	2,889	13	840	55	3,797	323	1,894	148	11	882	6.4	
1947	3,335	19	541	130	4,025	411	1,877	235	11	988	6.9	
1948	3,808	45	502	167	4,522	408	2,060	359	13	1,037	7.1	
1949	4,593	21	644	149	5,407	503	2,066	960	9	1,163	7.9	
1950	4,468	80	704	193	5,445	538	2,315	714	12	1,297	8.6	
1951	4,718	41	568	188	5,515	453	2,049	918	23	1,168	7.7	
1952	4,958	46	903	218	5,124	554	2,421	662	15	1,339	8.7	
1953	5,389	47	1,134	203	6,773	535	2,483	700	15	1,415	9.1	
1954	5,505	68	1,620	252	7,445	495	2,925	1,341	14	1,514	9.5	
1955	5,961	84	1,156	225	7,426	494	2,705	1,550	13	1,700	10.5	
1956	6,474	49	964	268	7,755	491	2,462	2,144	20	1,802	10.9	
1957	6,732	52	837	281	7,902	458	2,585	2,169	27	1,809	10.7	
1958	6,988	75	854	298	8,215	477	2,941	2,034	40	1,874	10.9	
1959 9/	8,123	64	793	262	9,242	470	10/4,721	2,818	10	11/191	11/1.1	
1960			1,032									

1/ Total and per capita data computed from unrounded numbers. 2/ This category includes fats and oils used as cooking and salad oils and in such products as salad dressing, mayonnaise, baked goods, and other processed foods. 3/ Includes the following oils: Cottonseed, peanut, soybean, corn, sunflower, teaseed, and edible olive; oleo oil, oleo stock, oleostearine, edible tallow; and oil equivalent of cottonseed, soybeans, and peanuts exported for crushing abroad. 4/ Includes primary oils listed in footnote 3, secondary or processed edible oils, and oil equivalent of mayonnaise. 5/ Mainly coconut, palm, palm kernel, and babassu oils. 6/ Excludes some procurement for civilian feeding in occupied areas. 7/ Beginning 1942, includes stocks of sunflower and teaseed oils not reported separately in preceding years. 8/ Beginning 1944, includes stocks of secondary or processed edible oils not previously reported. 9/ Preliminary. 10/ Includes cooking and salad oils. 11/ Excludes cooking and salad oil which is reported separately beginning 1959. For comparative purposes, if these oils were included as in earlier years, the 1959 total consumption would be 1,876 million pounds and per capita consumption 10.8 pounds.

Series Showing "Other Edible Oils" By Major Uses Developed

In the recent past, estimates on the utilization of edible oils in some of the products in the "other" or catchall category has been made, but such estimates were not incorporated into the long term series for food fats. Detailed estimates of per capita consumption for the more important components of the "other edible oils" group from 1949 to date have now been prepared and are presented in table 10 for the first time. The table shows that "other edible" oils now represent about 25 percent of total food fats consumed in the United States.

The estimated consumption rates for oils utilized in potato chip and frozen french fries are based on quantities of potatoes processed for these uses as reported by the National Potato Council. The use rate for fats and oils used in mellorine was developed from the statistics on mellorine production as published by AMS. Oil use per person in mayonnaise, salad dressings and related products was derived from the annual data published by the U. S. Department of Commerce as mentioned above. Use per person of salad and cooking oils consumed as such (in liquid form) was computed as the residual component, i.e., it represents the group between the 4 uses mentioned specifically above and the "other edible oil" usage. The estimate of salad and cooking oils used as such also includes small quantities of oil used for miscellaneous commercial purposes.

The growth in the use of cooking oils has been associated in part with the expanding demand for prepared foods and food mixes. The increase in production of frozen french fried potatoes from an estimated 22 million pounds in 1949 to 360 million pounds in 1959 is a case in point. The use of oils utilized in frozen french fries increased from an estimated .01 pounds per person in 1949 to .16 pounds in 1959.

Growth in production of potato chips has not only been greater than for french fries but they require a much higher percentage of oil. Output of potato chips has increased sharply from an estimated 301 million pounds in 1949 to 725 million in 1959. The oil utilized has moved up from 0.9 pounds per person in 1949 to 1.8 pounds in 1959. 1/

Mellorine is another product containing fats and oils for which the market has expanded in recent years. Output of mellorine has risen from 11.2 million gallons in 1952 (the first year data were available) to a record 44 million gallons in 1959. While the quantities of fats and oils utilized in mellorine are not particularly large because of the relatively low fat content of the product, oil used per person has moved up from an estimated .03 pounds in 1952 to .09 pounds in 1959.

Among the individual products of the "other edible oils" category, the use of salad and cooking oils as such has registered the largest single gain in the past decade, rising from an estimated 4.4 pounds per person in 1949 to 5.5 pounds in 1959.

1/ Benchmark data on production of processed foods using fats and oils will be available from the Census of Manufactures later this year.

Factors Affecting Consumption of Cooking and Salad Oils

Important factors contributing to the total increase in the use of cooking and salad oils has been rising income and the increase in the number of families using these oils.

In recent years consumers probably have been using salad and cooking oils to a greater extent following the postwar growth in popularity of home deep-fat frying. At the same time, commercial-institutional users apparently stepped up their demand for these oils in preparation of a wide variety of food products. This expanded use of oils for cooking is in addition to the growth of oils used in commercial and home production of mayonnaise and salad dressings.

Increased demand for restaurant-served meals and for convenience foods is associated with the rising levels of income and this undoubtedly has enabled the salad and cooking oils to make some inroads on the consumption of other food fats.

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